

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 10-173341

(43)Date of publication of application : 26.06.1998

(51)Int.Cl.

H05K 3/46

(21)Application number : 08-325447

(71)Applicant : MURATA MFG CO LTD

(22)Date of filing : 05.12.1996

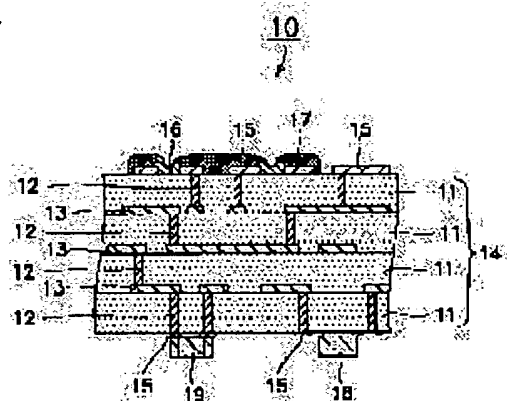
(72)Inventor : BANDAI HARUFUMI
TANI KOJI
SUGO KIMIHIDE

(54) CERAMIC MULTILAYER BOARD

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a ceramic multilayer board, capable of integrating the resistor of ruthenium base material in high reliability having superior migration resistance.

SOLUTION: This ceramic multilayer board 10 is formed of four layer ceramic insulator layers 11, formed of green sheets made of ceramic mainly comprizing barium oxide, aluminum oxide and silica. A via holes 12 to be filled up with palladium are provided in respective ceramic insulating layers 11, while inner conductors 13 made of copper are provided in the ceramic insulator layers 11 as the second, third layers from the top layer as well as the lowermost layer. At this time, a laminate 14 is formed by laminating these ceramic insulator layers 11 to be sintered integrally at about 850°C in the reducing atmosphere. Later, the surface of the laminate 14 is printed with surface conductors 15, made of silver and resistors 16 made of ruthenium-base material to be backed at about 850°C in an oxidizing atmosphere. Later if necessary, an overcoat 17 is provided on the surface of the ceramic board 10, while an active element 18 and a passive element 19 are packaged on the underside of the ceramic board 10.



LEGAL STATUS

[Date of request for examination] 03.07.2000

[Date of sending the examiner's decision of rejection] 02.04.2002

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office